

CLAIMS

What is claimed is:

1. A data structure for manipulating digital advertisement information within a user interface, the data structure comprising:
 - a computer readable medium;
 - a plurality of advertisement data objects stored on the computer readable medium, wherein each of the advertisement data objects includes data elements associated with the scheduling and display of one advertisement from the plurality of advertisements;
 - an identifier data object stored on the computer readable medium that has data elements identifying one or more from the plurality of advertisement data objects that are to be considered for display on the user interface; and
 - an image data object stored on the computer readable medium that has data elements including image information, wherein the image data object is linked to one or more of the advertisement data objects.
2. The data structure of claim 1, wherein each of the advertisement data objects includes one or more data elements associated with a user's preferences.
3. The data structure of claim 1, wherein each of the advertisement data objects includes a data element associated with a geographic location of the user interface.
4. The data structure of claim 1, wherein each of the advertisement data objects includes a data element associated with a user interface sophistication level.

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5. The data structure of claim 1, wherein each of the advertisement data objects includes a data element associated with display locations within the user interface.

6. The data structure of claim 1, wherein each of the advertisement data objects includes a data element associated with display priority within the user interface.

7. The data structure of claim 1, wherein each of the advertisement data objects includes a data element associated with display times within the user interface.

8. The data structure of claim 1, wherein each of the advertisement data objects are advertising objects.

9. The data structure of claim 1, wherein the image information includes video information.

10. The data structure of claim 1, wherein the image information includes graphical information.

11. The data structure of claim 1, wherein the image information includes textual information.

12. The data structure of claim 1, wherein the image data object includes a data element associated with a version of the image information.

13. The data structure of claim 1, wherein the image data object includes a data element associated with a priority of the image information.

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14. The data structure of claim 1, wherein the image data object includes a data element associated with a user interface sophistication level.

15. The data structure of claim 1, wherein the image data object includes a data element associated with a format of the image information.

16. The data structure of claim 1, wherein the image data object is a hypertext transport protocol (HTTP) object.

17. The data structure of claim 1, wherein the identifier data object is an update list object.

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18. A digital advertisement system for use in receiving, processing and displaying digital advertisement information, the digital advertisement system comprising:

a processor;

a memory communicatively coupled to the processor;

a first software routine stored on the memory and adapted to be executed by the processor to receive advertising objects from a transmitted data stream;

a second software routine stored on the memory and adapted to be executed by the processor to select a first group of advertising objects from the received advertising objects based on a local condition; and

a third software routine stored on the memory and adapted to be executed by the processor to sequentially display the first group of advertising objects based on a first ordered list.

19. The system of claim 18, wherein the second software routine is further adapted to be executed by the processor to select the first group of advertising objects based on a user's preferences.

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20. The system of claim 18, wherein the second software routine is further adapted to be executed by the processor to select the first group of advertisement objects based on a geographic location.

21. The system of claim 18, wherein the second software routine is further adapted to be executed by the processor to select the first group of advertisement objects based on a user interface sophistication level.

22. The system of claim 18, wherein the second software routine is further adapted to be executed by the processor to select a second group of advertisement objects based on a local condition.

23. The system of claim 22, wherein the third software routine is further adapted to be executed by the processor to display the second group of advertisement objects based on a second ordered list.

24. A method of receiving advertisements for use in a receiver station with a cache memory that receives a data stream containing advertising objects, the method comprising the steps of:

selecting a received advertising object from the transmitted data stream;

determining if the received advertising object is compatible with the receiver station based on one or more data elements within the received advertising object; and

discarding the received advertising object if it is not compatible with the receiver station.

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26. The method of claim 25, wherein step of determining if the received advertising object is a new version of a previously cached advertising object includes the step of comparing data elements associated with advertising object version.

27. The method of claim 24, further comprising the steps of comparing a priority of the received advertising object to a lowest priority associated with a plurality of cached advertising objects and discarding the received advertising object if the priority of the received advertising object is less than or equal to the lowest priority associated with the plurality of cached advertising objects.

28. The method of claim 27, wherein step of comparing a priority of the received advertising object to a lowest priority associated with a plurality of cached advertising objects includes the step of comparing data elements associated with display priority.

29. The method of claim 24, further comprising the step of replacing one from a plurality of cached advertising objects having a lowest priority with the received advertising object if the priority of the received advertising object is greater than the lowest priority of the one from the plurality of the cached advertising objects.

30. The method of claim 24, further comprising the step of discarding expired advertising objects from the cache memory.

36. The method of claim 35, further comprising the steps of discarding expired advertising objects from the first ordered list and inserting new advertising objects into the first ordered list.

37. The method of claim 35, wherein the step of generating a first ordered list associated with a first advertisement display position of the user interface includes the step of moving one of a pair of consecutive advertising objects having the same priority to a second ordered list so that the one moved advertising object has a higher rank in the second ordered list.

38. The method of claim 35, wherein step of sequentially displaying advertisements in the first advertisement display position of the user interface using the first ordered list includes the steps of:

comparing the priority of an advertising object associated with a second advertisement display position that at least partially overlays the first advertisement display position to an effective priority of the first advertisement display position; and

displaying the advertising object associated with the second advertisement display position based on the result of the comparison.

39. The method of claim 38, wherein the effective priority is based on an average of underlying display position priorities.

40. The method of claim 38, wherein the step of displaying the advertising object associated with the second advertisement display position based on the result of the comparison includes the step of simultaneously terminating the display of an underlying advertisement when an overlaying advertisement is scheduled to appear.

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